

ABSTRACT

Provided are a piezoelectric element in which favorable crystallinity can be obtained with improved uniformity, breakage of a piezoelectric film can be prevented, and thereby stable displacement properties can be obtained, a liquid-jet head using the piezoelectric element and a manufacturing method thereof. Steps of forming a piezoelectric layer are carried out a plurality of times so that a plurality of the piezoelectric layers are stacked, thus forming the piezoelectric film. The steps of forming the piezoelectric layer include: applying a sol containing an organometallic compound, drying the sol containing the organometallic compound, degreasing the sol containing the organometallic compound thus gelating the sol, and crystallizing the gelated organometallic compound. When forming a lowermost layer of the piezoelectric layers, a rate of temperature increase at least during initial degreasing is set to be 500°C/min or lower.